

CLAIM AMENDMENTS:

1. (currently amended) A solenoid driving device comprising:
a solenoid for driving an electromagnetic valve;
switch means for feeding an electric current from a first power source
intermittently to said solenoid, and
a current detector connected between said solenoid and said switch
means for detecting the electric current to flow through said solenoid.
2. (currently amended) A solenoid driving device according to Claim
1, wherein said current detector is disposed on the side of said first power
source with respect to said solenoid.
3. (original) A solenoid driving device according to Claim 1, wherein
said switch means and said current detector are disposed in a controller, the
outside of which is connected with said solenoid through a terminal portion,
and wherein said current detector detects the electric current to flow through
said solenoid connected to the outside of said controller through the terminal
portion.
4. (currently amended) A solenoid driving device comprising:
an electromagnetic valve including a solenoid;
switch means for feeding an electric current from a first power source
intermittently to said solenoid, and

a current detector connected between said solenoid and said switch means for detecting the electric current to flow through said solenoid, wherein said switch means and said current detector are disposed in a controller, the outside of which is connected with said solenoid through a terminal portion, and wherein said current detector detects the electric current to flow through said solenoid connected to the outside of said controller through the terminal portion and said current detector includes overcurrent detection.

5. (new) A solenoid driving device according to Claim 1, wherein said electromagnetic valve is an electromagnetic proportion control valve and said current detector includes overcurrent detection.

6. (new) A solenoid driving device according to Claim 1, wherein said current detector is driven by a second power source.

7 (new) A solenoid driving device according to Claim 6, wherein said second power source includes a direct current power source.

8. (new) A solenoid driving device according to Claim 7, wherein said second power source includes an electrical energy storage component disposed between said direct current power source and said current detector.

9. (new) A solenoid driving device according to Claim 6, wherein said current detector includes a voltage/current converter.

10. (new) An electromagnetic valve activation system, comprising:
a plurality N of solenoids;
a controller including at least one current detector for detecting current to the plurality N of solenoids and the controller including a terminal portion through which the controller is electrically coupled to the plurality N of solenoids with N+1 signal lines for driving the plurality N of solenoids.

11. (new) The system of Claim 10, wherein said controller having a first switch means and a second switch means, said first switch means for providing electricity from a first power source intermittently to a first solenoid of said plurality N of solenoids via said terminal portion, said second switch means for providing electricity from said first power source intermittently to a second solenoid of said plurality N of solenoids via said terminal portion, a first current detector disposed between said first solenoid of said plurality N of solenoids and said first switch means, and a second current detector disposed between said second solenoid of said plurality N of solenoids and said second switch means.

12 (new) The system of Claim 10, wherein said at least one current detector and said second current detector each include overcurrent detection.

13. (new) The system of Claim 11, wherein each of said first current detector and second current detector are driven by a second power source.

14. (New) The system of Claim 11, wherein said first and second current detectors each having a voltage/current converter.